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## The Use of the Internet for English Language Teachers' Professional Development in Arab Countries

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*Abstract: This study investigated the relationship between English language teachers' motives to use online teaching resources and three types of Internet practices: teachers' practices in using the Internet to collaborate with others, teachers' practices for classroom teaching, and the Internet's contribution to the overall professional development of teachers. Gender was also used to assess differences in the proposed model. In this study, one hundred and seventy-four English language teachers completed an online survey. SmartPLS was used to assess the measurement and the structural models. The results indicated that participation was a significant determinant of both English language teachers' Internet-related practices at classroom level and the Internet's contribution to the overall professional development. Considering gender differences, the results demonstrated that participation in online professional development was significantly related to the English language teachers' practices at classroom level for males but not for females.*

### Introduction

Professional development, which refers to the professional growth a teacher achieves as a result of having more experience and examination of his/her teaching systematically (Glatthorn, 1995; Avalos, 2011), is an integral part of educational institutions and a way of supporting innovations in the practice of teaching (Prestridge, 2014). Use of Information Communication Technologies (hereafter referred to as ICTs) in professional development of teachers can play a substantial role in improving access to all forms of education (Kennewell & Selwood, 1997). Use of the Internet is important for informal education in which teachers get involved for self-directed professional development, a term which refers to "using the Internet outside formal educational settings" (Eynon & Malmberg, 2011, p. 585). For teachers to fully integrate ICTs into classroom practices and professional development, they not only need to have technical skills and pedagogical knowledge; they need ongoing assistance (Al-Musawi, 2007; Ertmer & Hruskocy, 1999). However, such ongoing assistance may not be always available to English language teachers. Consequently, teachers who are keen to use ICTs for their classroom practices and professional development need to follow the path of self-directed professional development. The undeniable importance of self-directed professional development has been highlighted by several authors and researchers because this type of professional development provides teachers with chances to get themselves involved in various areas of learning based on their areas of interest (Fraser-Seeto, Howard, & Woodcock, 2015).

Although the important role of ICTs in teacher education is indispensable in Arab countries (Baker, Al-Gahtani, & Hubona, 2007; Almekhlafi, 2006), research has not

adequately addressed the use of the Internet for English language teachers' professional development in Arab countries. Thus, the main purpose of this research was to investigate the use of the Internet as a resource for educational content and professional practice in these countries. This study also examined gender differences in relation to teachers' practices of the Internet through employing Partial Least Squares (PLS).

The contribution and the value of our study lie in its focus on (1) English language teachers' professional development and (2) the use of PLS to measure gender differences in the use of the Internet for professional development. Regarding the focus on English language teachers' professional development, this is one of the contributions of our study because this area of research in Arab countries has not been addressed in previous studies. Regarding the second contribution of our study, we used PLS, which is an advanced statistical technique, to measure the gender differences in relation to the use of the Internet for English language teachers' professional development in Arab countries.

## Literature Review

Previous studies have revealed that teachers have an interest in incorporating the Internet in their professional development. Schrum's 1995 study is one of the early studies that focused on the use of the Internet in teacher education. Schrum examined the factors that encouraged in-service educators' decision to learn information technologies and the problems that interfered with their learning. The aim of the study was encouraging purposeful exploration of the use and integration of educational telecommunications for professional development and instructional activities. Although Schrum found that in-service educators were very enthusiastic about using technology in their profession, she pointed out that weak technical support, access, and limited resources (budgets) variables limited the educators in their use of ICTs in their schools. In another early study, Wiesenmayer and Koul (1999) examined the level of instructional use of the Internet among science teachers who were enrolled in an in-service professional development project. Wiesenmayer and Koul addressed the relationship between teachers' level of Internet use and some other variables such as teachers' amount of experience with the Internet, access to the Internet at home and in classrooms, and some other demographic factors. They found that the major predictors of teachers' level of Internet use were classroom access, instructional experience of using the Internet with students, availability of resource support, and teachers' use in schools.

The complexity of factors affecting teachers' ability to take advantage of the Internet for professional development was identified by Herrington and Herrington (2006) who explored Australian teachers' use of the Internet to support professional development and needs. On the effects of a specific professional model of teachers' practice and beliefs regarding teaching with the Internet, Giordano (2007) conducted mixed-method research in which the focus was the integration of Internet technologies into the regular curriculum. Giordano found that there were changes in teachers' practices and concerns regarding Internet integration. Similar to Schrum (1995), Wiesenmayer and Koul (1999), and Herrington and Herrington (2006), Giordano (2007) has shown that various factors affect Internet integration in professional development. These factors include support for the use of the Internet, teachers' beliefs regarding the effectiveness of using the Internet, and approaches to professional development.

Some studies have focused on teachers' attitudes towards the use of the Internet as an educational tool for professional development. In Cyprus, Charalambous and Ioannou (2008) explored primary teachers' attitudes towards the use of the Internet for personal development and as an educational tool and concluded that teachers had positive attitudes towards the use

of the Internet for these purposes. One of the recent studies on teachers' attitudes towards the use of the Internet for professional development is Demir's (2010) study which was conducted in Turkey, an EFL context. Demir used the theory of planned behaviour to examine the predictors of teachers' behaviour in Internet use for professional development. She found that intention was predicted significantly by perceived behaviour control and by attitude towards the behaviour of using the Internet for professional development. In addition, Demir identified attitude as the most important predictor of teachers' use of the Internet for professional development. In Brazil, Rolando, Salvador, and Luz (2013) found that biology teachers made limited use of the Internet and ICTs for educational purposes, with a rare use of the Internet for didactics purposes. In Zimbabwe, Mushayikwa (2013) recently investigated the use of ICTs for self-directed professional development by mathematics and science teachers and pointed out that the majority of Zimbabwean teachers had difficulties in accessing the Internet which had its impact on their use of ICTs for professional development.

To sum up, our review here shows that there are two gaps in the literature reviewed: (1) no previous studies were located on the use of the Internet for professional development in Arab countries, and (2) gender differences in the use of the Internet was not adequately addressed in previous studies. With reference to the first gap, it is important to highlight that most of the studies reviewed in this section were conducted in Western contexts. This shows that there is a need for studies on the use of the Internet for self-directed professional development in Arab countries. For example, Schrum (1995) and Wiesenmayer and Koul (1999) involved in-service teachers in the US context. The respondents in Herrington and Herrington (2006) were Australian professionals in rural and remote areas. In addition, Schrum (1995) and Wiesenmayer and Koul (1999) depended on training that was offered to in-service teachers to explore their use of the Internet for professional development. In other words, these studies have not focused on the use of the Internet for self-directed professional development. Furthermore, these studies reviewed here were conducted in the 1990s when access to and knowledge of the Internet were not as advanced as they are in this current age which is commonly described as the age of revolutionary advancement in information technologies. With reference to the second gap, studies reviewed here have not given adequate attention to the gender differences in the use of the Internet for self-directed professional development. Although the participants in Demir's 2010 study included male and female respondents, she did not examine the gender differences in the use of the Internet for professional development.

## The Study

This study addresses the following three research questions:

- (1) What are the practices of the use of the Internet among TESOL Arabia members?
- (2) What is the relationship between English language teachers' motives to seek online teaching resources and types of the Internet practices?
- (3) What are the differences between males and females across the model relationships?

## Research Model and Hypotheses

As shown in Figure 1, the current research model suggests that teachers' motives to use online teaching resources act as an independent antecedent of their practice of using the Internet because both engagement and devoting attention are critical to new learning

(Wlodkowski, 2003). In this study, teachers' motives are the reasons that drive teachers towards seeking online teaching resources on the Internet to use these resources for professional development. Baker (1988) connects the origin of 'motive' to cognitive processes based on Kagan (1972, p. 53) who defines a motive as a "cognitive representation of a future goal that is desired". Taking this definition into account, in our study motive describes the reasons that drive teachers to seek online teaching resources for their future goal which is professional development or any other goal that can yield contribution to teachers' professional development. Kagan also noted that a person may not be aware of his/her motives. However, when the goal is to improve teaching skills using Internet resources, the motive may be known, thoughtful, and introspectively understood by the person (such as the English language teachers in our study).

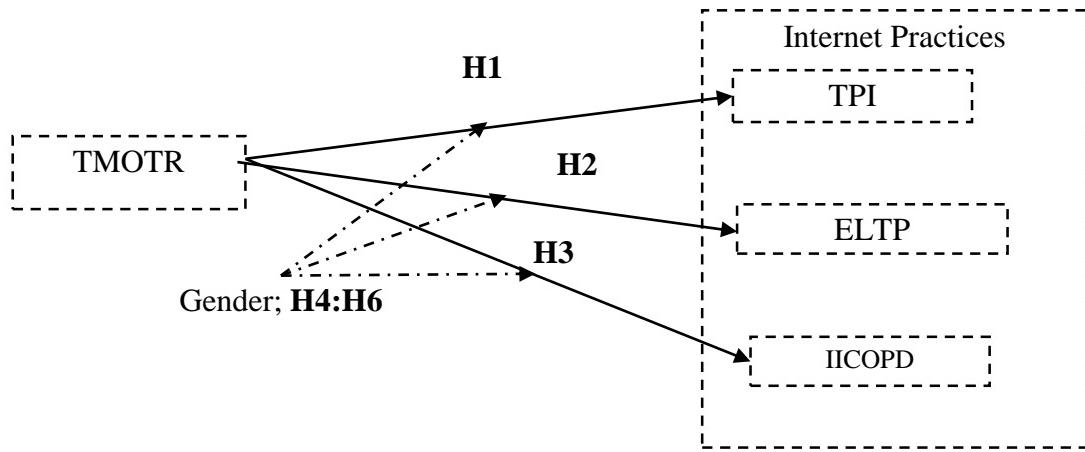
Thus, it is hypothesised that teachers' reasons to seek online teaching resources have a positive impact on the practices of using the Internet for professional development. Based on this, the following three hypotheses were formulated:

- H1: Teachers' Motives to use Online Teaching Resources (TMOTR) will have a positive and significant impact on Teachers' Practices of the Internet to collaborate with others (TPI).
- H2: Teachers' Motives to use Online Teaching Resources (TMOTR) will have a positive and significant impact on English Language Teachers' Practices for classroom teaching (ELTP).
- H3: Teachers' Motives to use Online Teaching Resources (TMOTR) will have a positive and significant impact on Importance of the Internet's Contribution to the Overall Professional Development (IICOPD).

In addition to these three hypotheses, this study hypothesised that gender has significant differences across the relationships between the independent variable and the dependent variables (refer to Figure 1). Generally, males have proved to be more active in online learning and the use of the Internet for educational purposes, whereas females have tended to be less active when interaction is not controlled (Herring, 2000). Furthermore, studies on gender differences have indicated that males and females are significantly different from each other on motivation factor (Gabriel & Gardner, 1999). However, Papastergiou and Solomonidou (2005) have clearly pointed out that gender issues in ICTs access and uses continue to be a prominent issue that deserves researchers' and practitioners' attention.

The issue that has not been addressed adequately is gender differences in relation to the relationship between teachers' motives to seek online teaching resources and the practices of using the Internet for professional development. Thus, this research expects that males have stronger significant differences across the relationships (refer to Figure 1). Regarding this, three more hypotheses were formulated:

- H4: The relationship between TMOTR and TPI will be stronger for males than for females.
- H5: The relationship between TMOTR and ELTP will be stronger for males than for females.
- H6: The relationship between TMOTR and IICOPD will be stronger for males than for females.

**Figure 1: Research Model**

Note:

- IICOPD: Importance of Internet's Contribution to the Overall Professional Development
- ELTP: English Language Teachers' Practices for classroom teaching
- TPI: Teachers' Practices of the Internet to collaborate with others
- TMOTR: Teachers' motives to use online teaching resources

## Method

### Research Design

This study adopted a quantitative approach to research because the use of quantitative methods relies on probability theory to test the statistical hypotheses. In addition, quantitative methods are deductive and, after testing the hypotheses, can lead to generalizations about characteristics of the population (Harwell, 2011). The quantitative design of this study included an online survey. Survey is a popular type of data collection instrument (Muijs, 2010). One of the strengths of survey research is that the researcher can collect large numbers of data in a short time (Mertler & Charles, 2008).

An online survey, which is an alternative to a pen-and-paper questionnaire, was chosen for four reasons. First, online surveys can give easy access to populations who would otherwise be difficult to reach (Dörnyei & Taguchi, 2009), provided that the respondents have access to the Internet. Second, online surveys are preferable due to their cost and the time needed for administering them to the respondents. Regarding these issues, Issa and Pick (2014, p. 434) have pointed out that “online surveys have the advantage of being cheaper, faster and independent in terms of time and space”. Dörnyei and Taguchi (2009) have argued that the reduction of costs is one of the most attractive features of online surveys. Third, online surveys can yield the highest level of convenience for the respondents who can answer the questionnaire according to their own pace, chosen time, and preferences (Sekaran, 2003). The fourth reason is related to the time spent in answering the online surveys. Compared to questionnaires administered in person or by email, online surveys can be answered and returned more quickly (Monette, Sullivan, DeJong, & Hilton, 2014).

### Research Setting and Sample

This study was conducted among members of TESOL Arabia which operates in the UAE. TESOL Arabia is one of the most important networks in the Arab region. It is a not-for-profit teachers' membership organization which focuses on professional development of

its members. Most of the members in this organization are based in the UAE and other countries in the Gulf region. The organization is voluntarily run by members who are elected by members in the organization. For financial matters, TESOL Arabia relies on the subscriptions of its members and the proceedings of its annual international conference and exhibition. There are various goals of this organization. Generally, TESOL Arabia encourages ELT professionals to benefit from the available resources on the worldwide web. However, one of the most prominent goals of TESOL Arabia is to stimulate the growth of professional development through the encouragement of both practical and theoretical scholarships. Promoting the English language teaching profession as a career is one of the main aims of the organization. In addition, the organization tries to encourage the use of available technologies in the profession of teaching. It also adopts the instructional methodologies that best meet the needs of the students in the region (TESOL Arabia, 2015a). TESOL Arabia has over 1800 members from Gulf Corporation Countries (GCC), Middle East and North Africa Countries (MENA), and around the world (TESOL Arabia, 2015b).

The sample of the study included only members of TESOL members who were in GCC and MENA countries. All respondents were English language teachers in Arab countries. The respondents were from Arab countries which have shared and similar characteristics. Arab countries also have almost similar cultures and values, with a lot of common features of educational systems. We intentionally did not limit the study to one Arab country because our main concern was to focus on members of TESOL Arabia regardless of their country of origin. Additionally, if we limited our sample to only those in one Arab country, we would not have a representative number of respondents. Our primary interest was to focus on only a sample from a particular organization. Thus, the study was not a study of a particular issue in one country. Rather, it was a study of a sample in an organization.

### **Measurement Instrument and Scale Development**

The measurement instrument consists of three sections. The first section of the instrument deals with four demographic variables which are gender, years of experience, usage of the Internet, and overall usage of the Internet in a week (measured by hours). The items in the second section focus on teachers' reasons to seek online teaching resources. These items were developed based on the individual differences and the nature of the cultural context as well as the nature of the study. The third section, which was adapted from Kabilan and Rajab (2010), includes ten items which focus on the importance of the Internet's Contribution to the Overall Professional Development (IICOPD) scale. In addition, ten items were used to obtain information on English Language Teachers' Practices of the Internet at classroom level (ELTP). Teachers' Practices of the Internet to collaborate with others (TPI) consists of 12 items. TESOL Arabia members were requested to respond to each statement on a five-point Likert scale ranging from 1 being strongly disagree to 5 being strongly agree.

For face and content validity, these items were reviewed by a panel of experts in the field of educational technology and language education. The panel included 12 experts: four professors in EFL and technology, one measurement expert, two bilingual experts, and five language educators. The experts' feedback was mainly used to ensure that the scale developed was culturally appropriate and to measure the content area of investigation. The Cronbach's  $\alpha$  reliability coefficient for the scale was 0.85.

### Data Collection and Analysis

The data were collected using online survey. A total of 174 members (72 males and 102 females) of TESOL Arabia organisation successfully completed the online survey. While the majority of the participants had more than 18 years of experience in English language education, 36 members had 12-17 years of experience, and the rest of the sample had less than 11 years of experience.

Data were analysed using SmartPLS. After the data were gathered, the research model was validated using a Partial Least Squares (PLS) approach method to test the structural model, with the help of SmartPLS 2.0 software. In this study, PLS was considered adequate for the analysis of data because it allows independence of data distribution and small sample sizes, and focuses on prediction (Ringle, Wende, & Will, 2005). In addition, PLS, which is considered a second generation of multivariate technique, allows the validation of the psychometric properties of the tool used as well as the direction and the strength of the relationships among the factors under the study (Cassel, Hackl, & Westlund, 1999; Saleem, Beaudry, & Croteau, 2011).

## Results

In this section, first the results related to TESOL Arabia members' practices of the Internet are presented. This is followed by the results concerning the assessment of the measurement model. Next, the assessment of the structural model, which includes teachers' motives to seek online teaching resources and the practices of the Internet, is presented. Towards the end of this section, the results of the differences between males and females across the model relationships are presented in detail.

### TESOL Arabia Members' Practices of the Internet

As shown in Table 1, 140 participants reported that they knew how to use the Internet, which indicates relatively high usage ( $M=4.52$ ,  $SD= 0.95$ ). This is supported by the results of overall usage of the Internet in a week (by hours), which indicates relatively moderate use of the Internet ( $M=2.22$ ,  $SD= 0.75$ ). The results also indicate that 78 respondents used the Internet between 10-20 hours in a week. The next largest portion of the study's sample, i.e., 68 responded with 20 or more hours per week spent on using the Internet.

Variable	Frequency	Percent	M	SD
Knowledge of Internet usage			4.52	0.959
Don't know how to use	1	1.1%		
No time to learn about the Internet	9	4.6%		
No time to use	18	10.3%		
No interest at all	6	3.4%		
I know how to use Internet	140	80.5%		
Overall usage of Internet in a week (by hours)			2.22	0.753
1-10	28	16.1%		
10-20	78	44.8%		
More than 20	68	39.1%		

Table 1: Time and Knowledge of Internet Usage

As shown in Table 2, teachers' practice of using the Internet was done to expand their experiences for career or promotion purposes ( $M=3.08$ ,  $SD=1.56$ ). The results also showed that teachers used the Internet to improve their teaching skills ( $M=2.88$ ,  $SD=1.05$ ). Equally important, the least two teachers' practices of the Internet are (1) to be aware of the latest development in ELT ( $M=1.88$ ,  $SD=0.99$ ) and (2) to remain interested in teaching ( $M=1.77$ ,  $SD=0.86$ ).

As for the second dimension, which is English language teachers' practices of the Internet at classroom level, the results presented in Table 2 show that language educators were interested in presenting creative works ( $M=2.89$ ,  $SD=1.26$ ) related to their profession. Such creative works can include teaching materials and ideas for teaching. The second largest preference as reported by TESOL Arabia members was 'To be involved in a world of information' ( $M=2.83$ ,  $SD=1.42$ ). The least two teachers' practices of the Internet in this dimension are (1) 'To search TESL-related information' and (2) 'To find exercises' ( $M=2.49$ ,  $SD=0.686$ ) and ( $M=2.38$ ,  $SD=1.150$ ) respectively.

The last dimension is teachers' practices of the Internet to collaborate with others. Teachers regarded developing communication skills as the most important part of their practices of the Internet to collaborate with others ( $M=3.27$ ,  $SD=1.48$ ). Exchanging TESL related information, knowledge and stories with other teachers ( $M=3.21$ ,  $SD=1.43$ ) was what TESOL Arabia members were concerned about. To combine new opinions with their own and to enjoy collaborating online with others were the least two teachers' practices of the Internet in this dimension with ( $M=1.93$ ,  $SD=0.85$ ) and ( $M=1.90$ ,  $SD=0.82$ ) respectively.

Internet's contribution to the overall professional development	Mean	Std. D
To expand experiences for career/promotion purposes	3.08	1.567
To improve teaching skills	2.88	1.055
To gain motivation	2.82	1.100
To grow professionally	2.43	1.468
To learn new skills related to ELT	2.36	1.356
To share ideas/views with other teachers	2.35	1.069
To facilitate thinking abilities	2.09	1.027
To prepare self for innovation	1.96	.828
To be aware of the latest development in ELT	1.88	.993
To remain interested in teaching	1.77	.863
<hr/>		
English language Teachers' practices at classroom level		
To present creative works	2.89	1.265
To be involved in a world of information	2.83	1.423
To find materials	2.82	1.198
To experience creative works	2.79	1.266
To learn about variety of TESL topics	2.70	1.208
To read academic articles from online journals	2.56	1.472
To search TESL-related information	2.49	.686
To find exercises	2.38	1.150
<hr/>		
Teachers practices of the Internet to collaborate with others		
To develop communication skills with others	3.27	1.487
To exchange TESL related information, knowledge and stories with teachers	3.21	1.437
To seek TESL-related information from others	2.91	1.316
To develop thinking skills with others	2.77	1.088
To share feedback by posting messages to others	2.68	1.454

To develop a solid foundation for learning	2.43	1.114
To receive professional support from teachers	2.32	1.542
To find lesson plans from others	2.17	1.226
To increase communication between teachers	2.17	1.455
To give professional support to teachers	2.07	1.138
To combine new opinions with own	1.93	.857
To enjoy when collaborating online with others	1.90	.824

**Table 2: Descriptive Statistics of Teachers' Practices of the Internet****Assessment of Measurement Model**

PLS used in this study allowed us to use a small sample size as long as it is at minimum ten times larger than the number of statements contained in the most significant construct (Gopal, Bostrom, & Wynne, 1992; Saleem, Beaudry, & Croteau, 2011). This condition was achieved since the largest construct, which is TPI, in the survey had 12 items and the sample comprised 174 participants. Using PLS in the current study involved two important steps. The first step consisted of assessment of the measurement model in respect to convergent and discriminant validity for each construct. In the second step, the examination of the structural model yielded path coefficient measures and the items' loadings (Hulland, 1999).

**Convergent and Discriminant Validity**

Convergent validity examines whether each statement measures what it was theoretically supposed to examine (Saleem, Beaudry, & Croteau, 2011). This can be achieved by maintaining each construct with reliability value above 0.70 and average variance extracted (AVE) above 0.50 (Fornell & Larcker, 1981). On the other hand, discriminant validity refers to the degree to which each construct is unique (Saleem, Beaudry, & Croteau, 2011). To be discriminant and convergent, each item linked to a construct should have a loading above 0.50 and load higher on that construct than any other latent variable (Saleem, Beaudry, & Croteau, 2011).

The initial factor structure conducted among the participants revealed a clean structure for the TMOTR factor and not for the other factors. A few iterations were then conducted for all factors to meet discriminant validity criteria. Based on the results of these iterations, five items were dropped from TPI, seven items from ELTP, and seven items from IICOPD. Loadings of the final overall sample show that all items for each sample loaded acceptably on their respective constructs. These items were carried out for further analysis (Ahuja & Thatcher 2005).

As shown in Tables 3, 4 and 5, all internal consistency reliability measures are higher than the value of 0.70 recommended by Nunnally (1978), ranging from 0.70 to 0.94. In addition, the AVE values for all constructs in each sample are higher than 0.50 and composite reliability values are higher than the threshold 0.70 (refer to Chin, 1998; Shepherd, Tesch, & Hsu, 2006). Following Fornell and Larcker's criterion, the root of AVE was calculated. This was done taking into account that the threshold of the results obtained from the calculations should exceed its correlation with other constructs (see Fornell & Larcker, 1981) and, therefore, all constructs exhibit more than 0.71 which is considered above any correlation value among all other constructs. Finally, correlation values show less than the threshold 0.5 (refer to Wixom & Todd, 2005). The chief purpose of this analysis procedure is to ensure the

internal consistency and construct validity of the items are valid and, therefore, can be carried out for further analysis procedures (see Sekaran, 2003).

		ICR	AVE	CR	M	SD	1	2	3	4
1	ELTP	0.77	0.67	0.86	2.70	0.57	(0.81)			
2	IICOPD	0.83	0.52	0.76	2.36	0.52	0.23	(0.72)		
3	TMOTR	0.92	0.66	0.94	3.03	0.99	0.16	0.31	(0.81)	
4	TPI	0.88	0.58	0.91	2.48	0.63	0.39	0.24	-0.19	(0.76)

**Table 3: Results of the Measurement Model: Reliability, Descriptive Statistics, and Correlation Matrix (N=174)**

Notes: ICR: Internal Consistency Reliability; M: Mean; SD: Standard Deviation; AVE: Average Variance Extracted. Figures in parentheses represent the squared root of AVE, while the others represent the correlations. These diagonal elements should be higher than the correlation values indicated off-diagonal.

		ICR	AVE	CR	M	SD	1	2	3	4
1	ELTP	0.73	0.62	0.83	1.63	0.36	(0.79)			
2	IICOPD	0.70	0.50	0.71	1.33	0.28	0.35	(0.71)		
3	TMOTR	0.94	0.71	0.95	2.77	0.93	0.33	0.15	(0.84)	
4	TPI	0.85	0.52	0.88	1.65	0.31	0.30	0.34	-0.35	(0.72)

**Table 4: Results of the Measurement Model: Reliability, Descriptive Statistics, and Correlation Matrix (N=72 males)**

Notes: ICR: Internal Consistency Reliability; M: Mean; SD: Standard Deviation; AVE: Average Variance Extracted. Figures in parentheses represent the squared root of AVE, while the others represent the correlations. These diagonal elements should be higher than the correlation values indicated off-diagonal.

		ICR	AVE	CR	M	SD	1	2	3	4
1	ELTP	0.79	0.68	0.86	1.55	.40	(0.82)			
2	IICOPD	0.75	0.53	0.78	1.39	.34	0.13	(0.73)		
3	TMOTR	0.91	0.60	0.92	3.20	1.00	0.16	0.50	(0.77)	
4	TPI	0.90	0.55	0.77	1.59	.40	-0.16	-0.28	-0.36	(0.74)

**Table 5: Results of the Measurement Model: Reliability, Descriptive Statistics, and Correlation Matrix (N=102 females)**

Notes: ICR: Internal Consistency Reliability; M: Mean; SD: Standard Deviation; AVE: Average Variance Extracted. Figures in parentheses represent the squared root of AVE, while the others represent the correlations. These diagonal elements should be higher than the correlation values indicated off-diagonal.

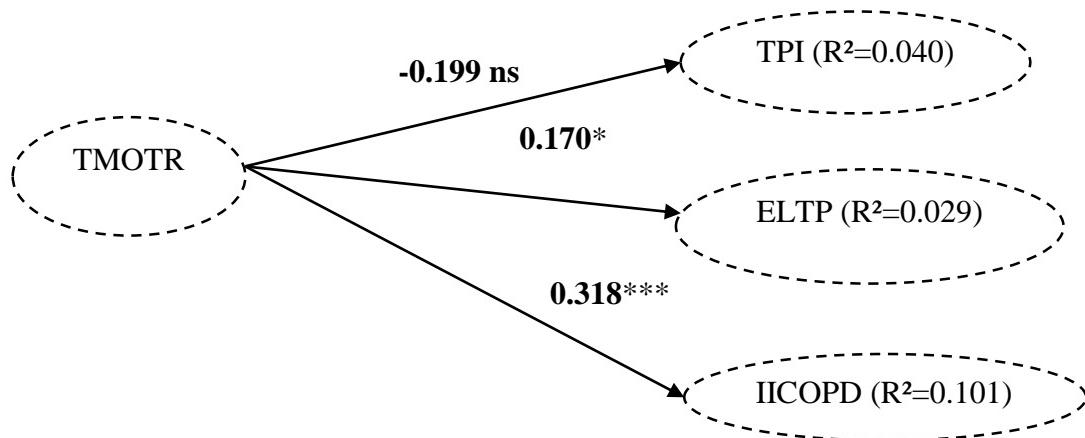
### Assessment of Structural Model

The current structural model and research's hypotheses have to satisfy two conditions. The first is the variance measured ( $R^2$ ) by the antecedents constructs, that is, values of the variance equal to 0.26, 0.13, and 0.02 are considered large, medium, and small respectively (Cohen, 2013). The second condition is a bootstrapping procedure in which t-values show the significance of path coefficients in the current research model as well as the total effects. Importantly, PLS multi-group analysis examines the differences that may occur across the path coefficients across different samples parameters. Thus, multi-group analysis was employed to investigate the groups' statistical significant differences using a distribution free method available in PLS approach (Henseler, 2007).

SmartPLS was also used to examine the separated assessment of the full sample as well as the subgroups' data, as recommended by Carte and Russell (2003) and Ahuja and Thatcher (2005). Figures 2 and 3 were examined with a bootstrap procedure with 1000 resample to investigate the statistical significance of the relationships in the structural model of the study (Cheung & Lau, 2007). Figure 2 shows the results for the entire sample in respect to  $R^2$  and path significance. While the results of  $R^2$  for the effect of TMOTR on TPI showed small effect ( $R^2=0.040$ ), for the effect of TMOTR on ELTP they showed small size effect ( $R^2=0.029$ ). However, the results of  $R^2$  for the effect of TMOTR on IICOPD showed medium size effect ( $R^2=0.101$ ). As can be noted, TMOTR is significantly and positively related to ELTP (path = 0.17,  $p<0.1$ ) and, most interestingly, IICOPD (path = 0.318,  $p<0.01$ ). These results confirm our expectations which are stated in H2 and H3. So, these hypotheses are therefore supported. This shows that TMOTR is not significantly related to TPI (path = -0.199,  $p>0.1$ ). Contrary to what was expected, the relationship between TMOTR and TPI was not significant and, therefore, H1 must be rejected.

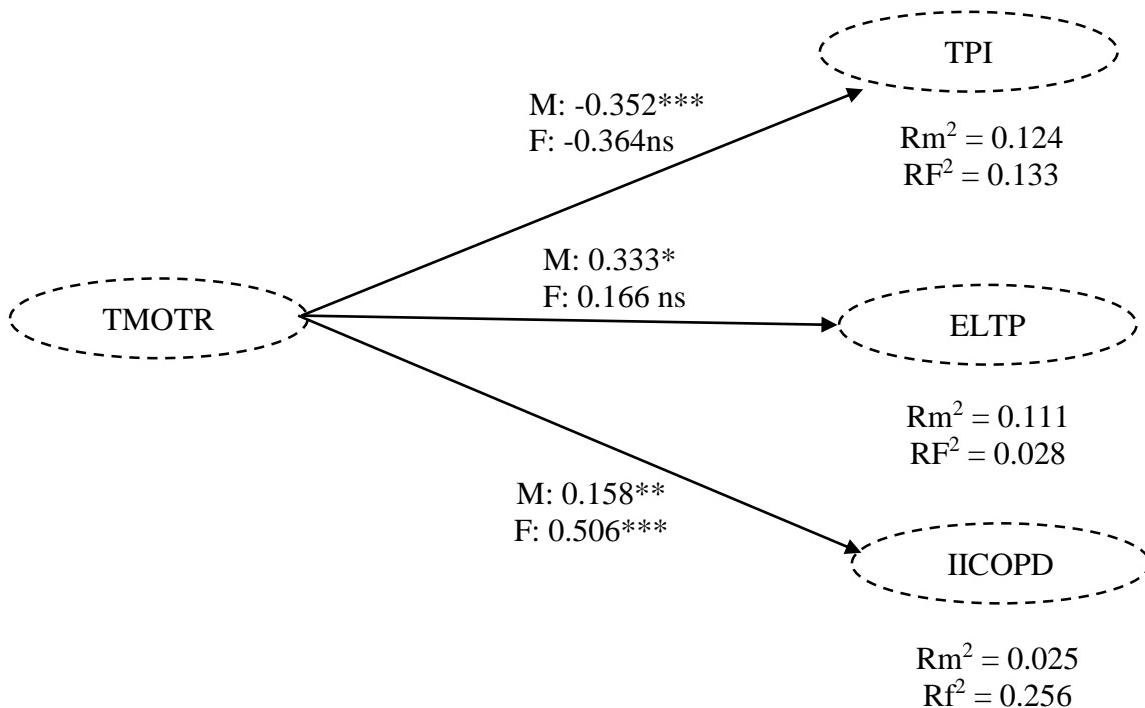
#### Differences between Males and Females across the Model Relationships

Figure 3 displays the results obtained from both male and female subgroups respectively. When both subgroups were compared, the results showed almost opposite patterns between males and females for the TMOTR factor. Indeed, the relationship between TMOTR and TPI was found to be negatively and significantly stronger for males (path = -0.352,  $p<0.01$ ) but not significant for females. This result does not match what was expected in H4. The results of path analysis also show that the relationship between TMOTR and ELTP was positively and significantly stronger for males (path = 0.333,  $p<0.01$ ) but not significant for females. Finally, the results of path analysis between TMOTR and IICOPD proved to be positive and significant for both males and females but stronger for females (path = 0.506,  $p<0.01$ ) than males (path = 0.158,  $p<0.05$ ).



**Figure 2: Results of the Entire Sample**

\* $p<0.1$ , \*\* $p<0.05$ , \*\*\* $p<0.01$ , ns: not significant, the variance explained ( $R^2$ )

**Figure 3. Path Coefficient of the Research Model and Differences Interceptions**

\*p<0.1, \*\*p<0.05, \*\*\*p<0.01, ns: not significant, the variance explained ( $R^2$ ); M: Male; F: Female

	Entire sample		Males		Females		Males vs. Females
	R <sup>2</sup>	$\beta$	R <sup>2</sup>	$\beta_m$	R <sup>2</sup>	$\beta_f$	t-value
TPI	0.040		0.124		0.133		
ELTP	0.029		0.111		0.028		
IICOPD	0.101		0.025		0.256		
TMOTR >TPI	-0.199		-0.352		-0.364		1.119
TMOTR >ELTP	0.170		0.333		0.166		3.428***
TMOTR >IICOPD	0.318		0.158		0.506		0.894

**Table 6: Results of Gender Differences**

ns: not significant.

\* p < 0.1.

\*\* p < 0.05.

\*\*\* p < 0.01.

Table 6 presents a summary of the research results. In fact, the results have demonstrated different patterns. When the relationship between TMOTR and TPI was negative and significant for males, it was not significant for females. Similarly, when the relationship between TMOTR and ELTP was positive and significant for males, it was not significant for females. The third relationship demonstrated support for our expectation which stated that TMOTR was positively and significantly related to IICOPD for both males and females but stronger for females.

Further, the last column in Table 6 demonstrates the significant differences among males and females in the path coefficients in the structural model (refer to Henseler, Ringle, & Sinkovics, 2009). The fifth hypothesis was supported by the analysis of data because the relationship between TMOTR and ELTP was stronger for males than females. Unexpectedly,

path coefficients between TMOTR and TPI did not confirm any differences between males and females. Likewise the path coefficients between TMOTR and IICOPD did not differ between males and females. So, hypotheses H4 and H6, therefore, must be rejected.

## **Discussion**

### **Summary of Hypotheses Testing**

At the entire sample level, the results have confirmed that Teachers' Motives to use Online Teaching Resources has a small effect on Teachers' Practices of the Internet to collaborate with others (refer to section 6.4). So, H1 was rejected. The second hypothesis was concerned with the examination of the relationship between Teachers' Motives to use Online Teaching Resources and English Language Teachers' Practices for classroom teaching in which a medium size effect was found to affect English Language Teachers' Practices for classroom teaching. Accordingly, H2 was supported by the analysis of the data. The results also proved the relationship between Teachers' Motives to use Online Teaching Resources and Importance of the Internet's Contribution to the Overall Professional Development. In this relationship, a significant medium size effect was found to affect Importance of the Internet's Contribution to the Overall Professional Development originated from Teachers' Motives to use Online Teaching Resources. On the other hand, multi-group analysis revealed that gender differences were found concerning the relationship between Teachers' Motives to use Online Teaching Resources and English Language Teachers' Practices for classroom teaching. Specifically, males were found to have stronger recognition of Teachers' Motives to use Online Teaching Resources as a significant determinant of English Language Teachers' Practices for classroom teaching more than females.

### **Teachers' Use of the Internet**

The results of this study revealed that members of TESOL Arabia spent a considerable amount of time using the Internet for their professional development. This finding confirms the positive attitudes of English language teachers towards the use of the Internet for professional development, an issue that has been pointed out by previous studies (e.g., Schrum, 1995; Herrington & Herrington, 2006; Charalambous & Ioannou, 2008; Demir, 2010; Mushayikwa, 2013; Rolando, Salvador, & Luz, 2013). This finding here encourages policy-makers in Arab countries to consider the Internet as a pivotal aspect of language educators lives. Therefore, involving English language teachers in a meaningful and effective discussion in the use of the Internet may identify what practices might work effectively for classroom teaching. Additionally, this study informs policy makers in Arab countries of the positive attitudes of English language teachers, which implies that the Internet has become a key component in foreign language education. This points out that English language teachers in Arab countries may seek relevant online teaching resources that meet their students' abilities and needs rather than relying on textbooks provided by their educational organizations.

### **Model Relationships**

This study sought to extend the current knowledge on the use of the Internet by language educators in the Arab region as well as the gender differences in the use of the Internet for professional development. Previous studies have found that participation is a significant determinant in order to seek alternative ways of professional development (refer to Lan, 2001; Grant, 2004; Howland & Wedman, 2004). At the entire sample analysis level, the relationship between Teachers' Motives to use Online Teaching Resources and Teachers' Practices of the Internet to collaborate with others was not significant. The results have also shown that TESOL Arabia members have regarded collaboration amongst them as not significantly valued in using the Internet (i.e. Teachers' practices of the Internet to collaborate with others). The response to such need is differently viewed according to each member's definition of an intimate situation and an appropriate response to the need (Kitayama & Markus, 1994). The results have revealed that the relationship between Teachers' Motives to use Online Teaching Resources and English Language Teachers' Practices for classroom teaching was positive and significant. This result is in line with Dennen (2005). The study also has showed that Teachers' Motives to use Online Teaching Resources positively and significantly influenced Importance of the Internet's Contribution to the Overall Professional Development. Thus, TESOL Arabia members' practices of the Internet should attract educational bodies to realise the competing factors that account for a potential success in achieving excellence in classroom teaching in educational Arab contexts.

### **Gender Differences**

One of the objectives of this study is examining gender differences in seeking online teaching resources, an issue which has not been addressed adequately in previous studies. This study has shown that path coefficients between Teachers' Motives to use Online Teaching Resources and English Language Teachers' Practices for classroom teaching showed significance differences between males and females. In other words, males regard Teachers' Motives to use Online Teaching Resources as a significant determinant of English Language Teachers' Practices for classroom teaching more than females. Interestingly, this result demonstrated a similar pattern which was revealed from literature on the use of the Internet for professional development. For example, Broadhurst (1993) indicated that women are less likely to post comments and posts because they basically receive less support from others (Herring, 1992). On the other side, Markauskaite (2006) found that males had relatively higher scores in technical ICT capabilities and this may propose that their motives to engage in online discussions or seeking information and knowledge could be higher for males than females. This notion is supported by research on ICT related differences between females and males in which intensive use of the Internet, enjoyment of e-learning, and encountering less difficulties while using ICT are favoured by males rather than females (Colley, 2003; Volman, van Eck, Heemskerk, & Kuiper, 2005). It is worth noting that in a controlled sphere of online professional development, the interaction among groups might demonstrate that males are more active and responsive to posts and comments (Korenman & Wyatt, 1996) than females. Further, what might be important to this result's justification is that the majority of males ( $n = 54$ ) had more than 6 years of experience in education. Indeed, their experience helped in seeing that active involvement in seeking online teaching resources affects teaching practice at classroom level.

This study has also revealed that the statistical comparison for path coefficients between Teachers' Motives to use Online Teaching Resources and Importance of the Internet's Contribution to the Overall Professional Development showed no significance

differences between males and females. This result is in line with Markauskaite (2006) who found that males and females did not differ significantly in respect to online learning activities. Lastly, the statistical comparison for path coefficients between Teachers' Motives to use Online Teaching Resources and Teachers' Practices of the Internet to collaborate with others showed no significance differences between males and females, and this is not important since there is no effect from Teachers' Motives to use Online Teaching Resources on Teachers' Practices of the Internet to collaborate with others on the entire sample model (please refer to Figure 3).

## Conclusions and Implications

This study has revealed that English language Teachers' Motive to use Online Teaching Resources is a significant determinant of their practices at classroom level as well as the contribution of the Internet to the overall professional development. In addition, the study has demonstrated that English language teachers' motive is significantly related to their practices at classroom level for male teachers more than it is for females. The findings of this study are useful for educational policy makers as they provide the means to acknowledging language educators who might be keen to devote much more time seeking professionalism in their classrooms. The research model can be used to place language teachers in groups and identify their preferences for online professional development practices because such grouping would help educational institutions in designing online professional development courses. Furthermore, the current study contributes to a better understanding of the role of gender differences in the practices of the Internet in educational contexts in Arab countries.

Although the advantages and disadvantages of the Internet to promote and develop alternative solutions to classroom practices and the inefficiency of current foreign language classroom instructions cannot be ignored, this research essentially agrees with what Healy (1999) articulated as technology choices, that is, the use of technology reveals philosophical differences in the way teachers teach and what to teach.

For future research, this study recommends investigating the Internet practices at institutional and cross-sectional levels. Individuals from higher education institutions and other cultures may exhibit different results from the current research. Future work may also address experience as a potential factor affecting the different types of the Internet practices in which individuals are interested and engaged. By addressing the practices of the Internet in educational Arab contexts, the ground has been laid for more studies to be carried out in this field because the use of technology in educational institutions in Arab contexts is rapidly growing and deserves researchers' attention. Another concern that needs further empirical investigation is how the Arab educational organisations react to the rapid growth of online teaching resources. Additionally, what might interest Arab educational organisations in developing effective pedagogical instructions at the classroom level is an issue that needs further investigation. These concerns, if investigated, may help in how teachers' practices of the Internet can be invested for better teaching and learning. In addition, future research may benefit from a mixed method approach to the topic whereby themes identified in the survey responses can be explored in online interviews with selected participants or, if it is possible, the themes can be the focus of group discussions. These techniques may help the researchers to use triangulation which is a recommended strategy of cross validation.

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## Compliance with Ethical Standards

The authors declare that they have no conflict of interest.